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| APPLICATION NO.                                     | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.                 |
|---|-------------|----------------------|---------------------|----------------------------------|
| 09/766,044  | 01/19/2001  | Melvin N. Miller     | 7420-061-999        | 9617                             |
| 20583   | 7590        | 05/24/2004           |                     |                                  |
| JONES DAY<br>222 EAST 41ST ST<br>NEW YORK, NY 10017 |             |                      |                     | EXAMINER<br>DONOVAN, LINCOLN D   |
|   |             |                      |                     | ART UNIT<br>PAPER NUMBER<br>2832 |

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                             |                             |                     |           |
|-----------------------------|-----------------------------|---------------------|-----------|
| <b>Offic Action Summary</b> | <b>Application N .</b>      | <b>Applicant(s)</b> |           |
|                             | 09/766,044                  | MILLER ET AL.       |           |
|                             | Examiner<br>Lincoln Donovan | Art Unit<br>2832    | <i>AN</i> |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 12 January 2004.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-5,7-17,19-41,43-45 and 47-64 is/are pending in the application.  
 4a) Of the above claim(s) 19-41 is/are withdrawn from consideration.  
 5) Claim(s) 1-5,7-17 and 43-49 is/are allowed.  
 6) Claim(s) 57 and 58 is/are rejected.  
 7) Claim(s) 50-56 and 59-64 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 50-56, 59-61 and 63-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beer (US 4,703,276) in view of Yamaguchi et al. (US 4,931,760) and Toyoshima et al. (US 4,727,327).

Beer discloses a magnet assembly (11) for an NMR system comprising: at least four pairs of wedge-shaped magnets (figure 1) arranged to surround a tubular volume of space and provide in at least a portion of the surrounded volume a cylindrically shaped substantially homogeneous magnetic field (column 2, lines 62-641, the magnets of each pair being disposed diametrically opposite each other with respect to the surrounded volume with magnetization directions having substantially the same orientation (figure 1) and adjacent magnets of the assembly being separated by gaps. Beer further discloses the formation of first and second differing magnetic fields (21, 24, figure 1).

Beer discloses the instant claimed invention except for: the magnet assembly being used in an MRI system.

Yamaguchi et al. disclose a magnet arrangement for an MRI system comprising pairs of magnets surrounding a volume to from a uniform field therein.

It would have been obvious to one having ordinary skill in the art at the time the invention was made that the magnet arrangement of Beer could have been used in an MRI system, as suggested by Yamaguchi et al., for the purpose of controlling the field inside the surrounded volume.

Beer, as modified, discloses the instant claimed invention except for: a ring surrounding the magnets.

Toyoshima et al. disclose a ring structure (37) surrounding the magnets. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a ring structure in the magnet arrangement of Beer, as modified, as suggested by Toyoshima et al., for the purpose of providing adjustment of the magnetic field within the surrounded volume.

#### ***Allowable Subject Matter***

Claims 1-5, 7-17 and 43-45, 47-49 are allowed.

Claims 57-58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments filed 01-12-04 have been fully considered but they are not persuasive. Applicant argues that the prior art does not disclose the creation of a non-homogeneous field within the surrounded volume. Claims 1-5, 7-17, 43-45, 47-49 and 57-58 have been indicated as being allowable over the prior art of record. Applicant has not claimed the specific fields within the surrounded volume in claims 50-56 and 59-64.

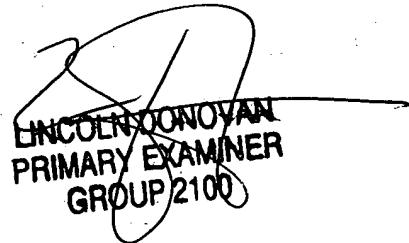
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lincoln Donovan whose telephone number is (571) 272-1988. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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